

DIGITAL ZONES OF IMMATERIAL PICTORIAL SENSIBILITY

BLUE PAPER

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A proposal to create digital reproductions of Yves Klein artworks—specifically, empty digital spaces imbued with an immaterial artistic sensibility—that are then sold as an ERC-20 compliant token on the ethereum blockchain.

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ABSTRACT

“I have overcome the problematics of art.”

–Yves Klein,

Preparation and Presentation of the Exhibition on April 28, 1958.

In 1958 on the streets of Paris, as the French Republican Guard¹ looked on, some 3,000 people lined up to see an exhibition of invisible artworks in a small, empty white room. The works had been created by 30-year old French artist Yves Klein, best known for his monochrome paintings of deep, hypnotic blue. After finally making their way through the exhibition, some viewers were intrigued while others were upset. Many were baffled but—according to at least one account—a few were moved to tears.² The French writer Albert Camus left the following note at the gallery after his visit: “With the void, full powers.”³

Making the whole project even more baffling was the price tag attached to the pieces. The immaterial artworks could be purchased only for the most material of currencies: pure gold.

After their wildly successful debut, the invisible artworks were re-exhibited in various forms up until Klein’s premature death in 1962 at the age of 34. These invisible artworks

¹ Kaira Cabañas. “Ghostly Presence.” In *Yves Klein: With the Void, Full Powers*, edited by Deborah Horowitz, p. 185. Minneapolis: Hirschorn Museum and Sculpture Garden/Walker Arts Center, 2010.

² Yves Klein. “Preparation and Presentation of the Exhibition on April 28, 1958.” In *Commerce by Artists*, edited by Luis Jacob, pp. 112-121. Toronto: Art Metropole, 2011.

³ Sidra Stich. “Yves Klein.” p. 140. Stuttgart: Cantz Verlag, 1994.

would eventually be called *Zones de Sensibilité Picturale Immatérielle*.⁴ Today, they are considered an important early example of conceptual art⁵ that challenged notions of materiality, ownership, and the rituals of exchange.

Through the artwork itself, an empty space that Klein claimed was imbued with the sensibility (but not the physical trace) of the colour blue,⁶ Klein explored the absolute limits of the relationship between experience and material. The *Zones* confer Klein's total belief that an artistic experience can be created and communicated without employing any material whatsoever.

Through the exchange of these pieces, Klein was able to draw parallels between the immateriality of his “scandalous” artwork and the immateriality of traditional ideas of ownership. Klein distinguished between two related but fundamentally different types of ownership: the absolute ownership of the thing, and the legal ownership of the deed to the thing. In different terms, we could say he separated the ownership of spiritual use value and material exchange value. In Klein's project, it is impossible for a collector to have both.

This paper proposes a series of digital reproductions of Klein's artworks, to be sold through a smart contract on the ethereum blockchain. These reproductions will be titled *Digital Zones Of Immaterial Pictorial Sensibility*, and the ethereum token through which they are sold will carry the symbol IKB.

Today, massive shifts in both sensory experiences and financial exchanges are occurring across the entirety of the privileged class. Since Klein's passing, the

⁴ The title translates to English as *Zones of Immaterial Pictorial Sensibility*. In this document, I will refer to Klein's artwork either by the full title, or simply as *Zones*. The title of my artwork, a reproduction, may be shortened to *Digital Zones*.

⁵ [Walker Art Gallery online](#) retrieved 1-11-08

⁶ Kaira Cabañas. “Ghostly Presence.” In *Yves Klein: With the Void, Full Powers*, edited by Deborah Horowitz, p. 184. Minneapolis: Hischorn Museum and Sculpture Garden/Walker Arts Center, 2010.

immaterial—or virtual—experience has become an accepted substitute for the physical or spatial experience. At the same time, the complete abstraction of ownership and value has come to pass; not just through the adoption of digital payments and currencies, but also through byzantine processes for creating financial instruments on Wall Street.

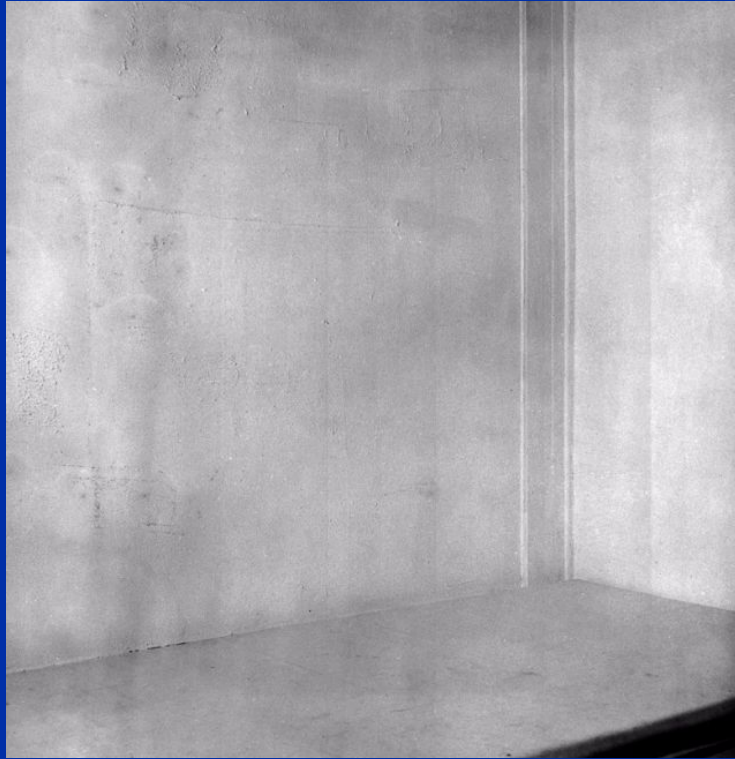
Against this backdrop of an increasingly immaterial culture, the reissue and update of the *Zones of Immaterial Pictorial Sensibility* ought to produce new resonance. I have recreated the *Zones* as a website and deployed a smart contract on the ethereum network to facilitate their transaction. I undertake this project with the following goals:

1. Establish the idea of immaterial artwork as the apotheosis of the virtual experience.
2. Exaggerate the separation of exchange value and “authentic, immaterial value” by rendering this artwork as a highly liquid digital asset.

I hope that by revisiting this artwork and transposing it into a digital context, the viewer may find ways that the present-day condition of virtual experiences and digital assets updates Klein’s original ideas. Simultaneously, one may find that Klein’s nearly 60-year-old experiment can critique today’s immaterial culture and overheated digital asset market.

The first two background sections of document will describe, in detail, the context for this reissued artwork. The next two sections outline the features of the artwork, and explain exactly how the original is translated to the new digital medium.

BACKGROUND: KLEIN'S ZONE OF IMMATERIAL PICTORIAL SENSIBILITY



[Fig. 1: View of the “Void” exhibition at Galerie Iris Clert, 1958]

By the late 1950s, Yves Klein was intensely focused on the practice of “immaterialization:” the idea of creating artwork with little or no physical aspect. It would be two more years before the art critic Pierre Restany would coin the term *Nouveau réalisme* (*New Realism*) to describe the work of Klein and other like-minded artists,⁷ but the label is enlightening even when applied retroactively to this work. In presenting an empty space as an artwork, Klein wasn’t aiming to achieve a deeper level of abstraction, or to remove his art from the real world; he was striving to achieve a deeper level of “the real.”

⁷ Sidra Stich. “Yves Klein.” p. 204. Stuttgart: Cantz Verlag, 1994.

At the time of the *Void* exhibition, Klein was best known for his monochromatic works in his patented *Klein International Blue*. The Blue Monochromes were all coated uniformly in the same shade of dizzyingly flat and deep ultramarine blue (which Klein really did patent). They were hung on pegs to float a few inches off of the wall so as to remove the connotation that they were pictures or representations, and instead proudly assert that these were pure experiences in their own right.

At the same time, the artist's deep connection to spirituality and mysticism⁸ was pulling him further away from the medium of paint and canvas, and away from physical materials altogether. Klein came to the conclusion that "solving the problematics of art" meant transcending the practical and sensorial limitations of the physical form. Creating a "pure visuality" meant creating works without any physical aspect.

Some of these exercises in the immaterial were whimsical. In 1958, his collaboration on a new opera house in Gelsenkirchen would inspire him to design "the architecture of air:" a proposal for buildings without traditional walls or roofs, only streams of air to protect from the elements.⁹ Klein designed columns made of fire and water to adorn these hypothetical spaces. Some iterations of work created in this—what Klein called his "Pneumatic Period"—were political. Later, he'd propose an imaginary painting he called "The Blue Revolution" which would cover the entirety of France, even if only in spirit.

Klein's embrace of the immaterial reached its apotheosis in *Zone de Sensibilité Picturale Immatérielle*. On April 28th, 1958 (Klein's 30th birthday), versions of this artwork were presented for the first time at Galerie Iris Clert in Paris to considerable publicity. The exhibition, which would come to be known as "The Void", consisted of a mostly empty gallery that Klein had meticulously painted white. Klein claimed that the space was imbued with a pure artistic sensibility, one that would "literally impregnate"

⁸ Klein's interest in Zen, Cosmonogie, the Order of Saint Sebastian, and other metaphysical areas of study are well-documented. See: Sidra Stich. "Yves Klein." pp. 17-18, 78. Stuttgart: Cantz Verlag, 1994.

⁹ Sidra Stich. "Yves Klein." p. 121. Stuttgart: Cantz Verlag, 1994.

¹⁰ viewers. Specifically, he stated that the gallery contained the pure essence of the color blue, though there was no physical indication of it.

In Klein's own words, what he achieved with "The Void" was:

*"the creation of an ambience, of a real pictorial climate, one that is therefore invisible."*¹¹

Klein had created an artwork that could contain the "sensibility," or produce the sensation, of a visual experience without relying on paint, canvas, or any material at all.

The exhibition at Galerie Iris Clert in Paris was a sensation. Klein would exhibit these "invisible artworks" many more times before his death in 1962. Some collectors purchased the pieces, and in time Klein strictly defined the protocol for their transaction. The final arrangement for acquiring a *Zone of Immaterial Pictorial Sensibility* (as they became known) was a work of performance art in itself.

If a collector desired to purchase a *Zone*, they could do so only by offering pure gold in exchange. After paying for the *Zone* with the requisite amount of gold, the collector was issued a receipt designed and signed by Klein himself, which served as proof of the transaction. However, Klein maintained that at this point the collector did not actually own the "authentic immaterial value" of the work. For Klein, true ownership of the artwork meant that its sensibility would become a part of the owner in a spiritual sense. To obtain the true immaterial value of the artwork, the purchaser could participate in a ritual at the River Seine. The purchaser would burn his receipt, and

¹⁰ Yves Klein. "Preparation and Presentation of the Exhibition on April 28, 1958." In *Commerce by Artists*, edited by Luis Jacob, pp. 112-121. Toronto: Art Metropole, 2011.

¹¹ *Ibid.*, 113.

Klein would throw half the gold into the river. The transaction would then be complete, and the collector would truly own the invisible artwork.

There are three documented instances of collectors performing this ritual with Klein.

BACKGROUND: CRYPTOCURRENCY AND DIGITAL ASSETS

BITCOIN

In 2008, a mysterious programmer or group of programmers working under the pseudonym Satoshi Nakamoto released the bitcoin white paper. This elegant and concise four-page document described a complicated, revolutionary new technology for processing electronic payments through a decentralized peer-to-peer network.

Each time a user on the bitcoin network creates a transaction, that transaction is verified through public key cryptography and then broadcast to the entire network. Every computer on the network collects all the most recent transactions into a single package of data, or “block,” and double-checks that all these transactions are valid. Once a computer has verified a “block” of transactions and over half of the other peers on the network agree that this computer has processed the transactions fairly, that entire block of data becomes “canonical”—it is added to the chain of all transactions ever recorded on the network, and now cannot be reversed or erased from the distributed ledger. The network remains secure and reliable because identical copies of the ledger are stored on each and every computer on the network. This constantly growing, permanent ledger is called a “blockchain.” A currency traded on any such blockchain is typically referred to as “cryptocurrency.” Today, bitcoin remains the single most valuable cryptocurrency by market capitalization, with the value of all bitcoins in circulation exceeding \$32 billion USD.¹²

The earliest bitcoin enthusiasts were drawn to the technology for a variety of reasons. Some of these early adopters were responding to controversial fiscal policies being

¹² coinmarketcap.com, retrieved July 18, 2017.

rolled out in response to the unfurling economic crisis.¹³ In 2009, the US Federal Reserve attempted to accelerate the country's recovery from the crisis through aggressive quantitative easing—essentially the printing of new money. Critics argue that printing new money results in a depreciatory effect, diminishing the value of the currency overall.

For these critics, bitcoin's hard-coded issuance schedule (only 21 million bitcoins will ever be created) made the cryptocurrency seem a safer investment than US dollars. Investors who had witnessed the devastating effects of currency depreciation in countries like Argentina¹⁴ argued that bitcoin was an important financial technology for citizens under unstable or untrustworthy governments.

General libertarian distrust of centralized authorities and censorship was a common value across early bitcoin adopters. This sentiment was exemplified in late 2010 when, spurred by political pressure, major companies like VISA, MasterCard, and PayPal blocked transactions to WikiLeaks donation accounts. The financial blockade became a rallying cry for libertarians who were outraged that a handful of corporations had dictated where individuals could and couldn't send their financial support. When WikiLeaks announced that they would circumvent the blockade by accepting donations in bitcoin, another unique and high-profile use case for the cryptocurrency emerged, and the technology gained even greater traction in the libertarian community.¹⁵

The apparent anonymity of bitcoin was another appeal of the technology. The online black market called Silk Road was probably the most active marketplace for bitcoin purchases and sales between the market's launch in 2011 and its shutdown by the FBI

¹³ Nathaniel Popper. "Digital Gold." p. 286. New York: HarperCollins, 2015.

¹⁴ Ibid., pp. 153-161.

¹⁵ Ibid., p. 80.

in 2013. An estimated \$15 million¹⁶ in transactions, mostly involving the sale and purchase of illegal drugs, ran through the Silk Road in 2012. Since 2013, numerous other black market sites accepting have emerged to fill the vacuum left by Silk Road, allowing users to anonymously purchase illicit materials and contraband with cryptocurrencies.

Still, there are many bitcoin skeptics. For them, the sheer immateriality of the currency makes it seem impossible that a bitcoin could be of any real value. Fiat currencies have traditionally been backed by amounts of gold held in reserves and, after that standard was removed, by the promise of stable governments to accept that currency as payment for taxes and services. Skeptics rightly point out that bitcoin is backed by nothing at all. Its value is secured only in the eye of the beholder, and even this perception is hindered by the complete immateriality of the asset. Bitcoin has no physical form to keep in your pocket. Bitcoin has no intrinsic value. Given this inarguable fact, it seemed unlikely in 2009 that bitcoin users would ever find a broad market willing to join into the collective delusion of bitcoin miners and actually accept the virtual asset for physical goods. The first known exchange of the immaterial bitcoins for physical goods finally occurred in 2010, when a Florida programmer named Laszlo Hanyecz offered 10,000 bitcoins in exchange for two pizzas. A message-board user saw the offer Hanyecz had posted, duly delivered the pizzas, and happily received his virtual payment. More use cases followed. Today, those 10,000 bitcoins are valued at roughly \$20 million USD.

The success of bitcoin has spawned hundreds of imitation cryptocurrencies, sometimes called “altcoins.” Some of these altcoins differ from bitcoin in the details of their network protocol, issuance schedule, or technical features. Many are based on the exact same code as bitcoin, cut-and-pasted and deployed on a new network of computer users hoping to create the next big thing— and include themselves on the ground floor. Litecoin began as a bitcoin clone which touted itself as the “silver to

¹⁶ Christin, Nicolas. "Traveling the Silk Road: A Measurement Analysis of a Large Anonymous Online Marketplace" ([PDF](#)). Carnegie Mellon INI/CyLab. Retrieved 1 August 2013.

bitcoin's digital gold.¹⁷ In 2017, it reached an all-time-high market capitalization of roughly \$2.8 billion USD. Potcoin is another bitcoin clone, but specifically marketed to marijuana users. On June 13, 2017, Dennis Rodman was seen in the news sporting a Potcoin t-shirt on his latest visit to North Korea. Potcoin was revealed to have sponsored the trip. The price of potcoin pumped 97% before dropping again the next day.

The most valuable use case for bitcoins today is the buying and selling of altcoins. On the day of this writing Poloniex, "the world's most active digital asset exchange," processed transactions worth over \$334 million USD,¹⁸ a daily figure which makes the \$15 million in drugs and weapons sold annually on the old Silk Road seem quaint. Fiat currencies are not available for exchange on Poloniex; the entirety of the trading volume is the swapping of different immaterial coins.

ETHEREUM

Ethereum was conceived in 2013 Russian-Canadian programmer Vitalik Buterin, then 19. In his ethereum whitepaper, he proposed a decentralized network like bitcoin's, but whereas bitcoin only processes transactions—essentially just the simple addition and subtraction of numbers on a ledger—this new network would compute more complicated code and execute programs. Ethereum would be, in effect, a "world computer." The programs running on the computer would be "smart contracts"—automated processes which could issue payments on a set schedule, distribute profits in a company according to an agreed-upon payout structure, or tally votes in an election. Because these contracts existed on a decentralized blockchain, they would be tamper-proof, verifiable, and rely upon no trusted third-party or

¹⁷ [Interview with Charlie Lee](#). Retrieved August 2, 2017.

¹⁸ Statistics from coinmarketcap.com. Retrieved July 17, 2017.

middleman. Whereas bitcoin is an alternative to fiat currencies, ethereum would be an alternative to the entire financial system.

Other companies, even rival ones, are able to build applications on top of the ethereum network. The openness of ethereum as a platform for other products, as opposed to a finished application in itself, has been a significant factor in the explosive growth of the network. It's a major reason why some observers speculate that ethereum could emerge as the Facebook to bitcoin's MySpace.

After Facebook opened its network to developers to create native apps like Farmville, or platform-specific content, it became a juggernaut. Third party content kept users coming back to its platform, and Facebook discovered the rule that now drives the web 2.0 economy: it turns out that controlling the pipeline is much more lucrative than creating its content. In a similar way, ethereum has grown by allowing other blockchain developers to create distributed applications, or DApps, over top of its blockchain. Ethereum even allows developers to create their own cryptocurrencies.

The openness of the ethereum network has a counterintuitive effect on ethereum's native currency, called ether. The ethereum network processes the transactions of any contract or user-created token, not just transactions specific to its own native currency. Through smart contracts uploaded to the ethereum network, companies are creating grassroots electrical energy grids, hedge funds, and even services which validate the authenticity and provenance of artworks. None of these applications are required use the currency ether in any way except one: ether is used to pay for the computational costs of executing lines of code on the network. In this way, ether has a certain intrinsic use value which bitcoin does not.

Ethereum as a platform ought to be somewhat indifferent to the market value of ether as a currency. After all, ether is just one of an infinitely vast range of possible assets that

can be traded the network. Still, the price of ether has skyrocketed in 2017: opening at around \$8 USD in January and reaching a high of over \$400 in June.

An idealistic vision for the ethereum technology is a world where this decentralized network for financial transactions—an “internet of money” as it is sometimes called—allows anyone in the world to access financial services without any restrictions or transaction fees imposed by large corporations or financial institutions.

Among the earliest adopters of ethereum technology were large corporations and financial institutions. At the time of writing, dozens of companies, including JP Morgan, MasterCard, Toyota, The National Bank of Canada, and even the Indian state government of Andhra Pradesh have joined a formal working group which shares resources and knowledge to eventually integrate their services on top of the ethereum network or a similar-type blockchain technology.¹⁹ As early blockchain enthusiasts saw the opportunity to create more secure, lower-cost systems for everyday users, these corporations recognize the potential profits in creating these systems for themselves.

These real-world democratic applications of ethereum may be coming in the future. Today ethereum, like bitcoin, is predominantly used for the purchase and exchange of other immaterial speculative assets. Developers building on top of ethereum are in the middle of a metaphorical gold rush as a new type of venture capitalism rushes to fund blockchain start-ups. In this new, unregulated crowdfunding model, companies raise money through an initial coin offering of tokens, or “ICO,” rather than an initial public offering of traditional shares. These tokens usually don’t represent actual ownership in the company. Rather, they’ll have some sort of use case in the application or service that they are intending to provide when their product goes live. A rough analogy would be Starbucks selling reward points before they opened any stores. The reward points are fixed in supply and will float in value based on market demand for the product

¹⁹ entethalliance.org. Retrieved August 2, 2017.

after the stores open. A speculator may buy this Starbucks token during the ICO for \$100, hoping that it might be worth 1000 coffees (or the equivalent fiat value) later on, if this hypothetical coffee company is successful.

In the first half of 2017, start-ups have raised over \$600 million through ICOs.²⁰ Few of these companies have yet brought a minimum viable product to market.

²⁰ Smith & Crown. Retrieved August 2, 2017.

FEATURES OF THE ARTWORK

SOURCE TEXT

The object of this endeavor: to create, establish and present to the public a sensible pictorial state in the limits of an exhibition room for paintings. In other words, the creation of an ambience, of a real pictorial climate, one that is therefore invisible. This invisible pictorial state in the space of the gallery will be so present and endowed with an autonomous life that it will literally be what has been given, until now, as the best general definition of painting: “radiance.”

For the creative act to succeed, the immaterialization of the invisible and intangible canvas must act upon the sensible vehicles or bodies of the gallery visitors with much more effectiveness than ordinary, physical, representational pictures. The latter, if they are of good quality, are also endowed with some special pictorial essence and affective presence; that is, with sensibility, but one transmitted by the suggestion of every physical and psychological appearance of the painting, by its lines, contours, forms, composition, juxtaposition of colours, etc. These intermediaries are now no longer needed: one is literally impregnated by the sensible pictorial state that was specialized and stabilized by the painter beforehand in the given space. And it is a direct and immediate perception–assimilation without any effect, any trick or any deception.

–Yves Klein,

Preparation and Presentation of the Exhibition on April 28, 1958.



[Fig. 2: View of Klein's installation at the Hessenhuis exhibition, 1959]

FEATURES OF KLEIN'S ZONES

Klein's immaterial zones were presented in different formats between 1958 and 1961. In his original presentation of *The Void* at Galerie Iris Clert, Klein meticulously painted the gallery interior white, leaving only the ceiling and the grey carpet untouched.²¹ While the inside of the gallery was perfectly "empty," Klein did plan a number of elements on the exterior which would allow viewers to experience with the colour blue in its "material" state before they entered the exhibition. Lining up outside the gallery, viewers would have seen the windows painted blue and entered through blue drapery

²¹ Klein, *Preparation and Presentation of the Exhibition on April 28, 1958*

which Klein had hung. Once a viewer reached the threshold of the exhibition space, they were offered a ceremonial cocktail of Cointreau, gin, and methylene blue. Finally, the viewer would enter the gallery. By sequencing the entrance into the exhibition after a number of blue experiences, Klein created a transition for the viewer to progress from the experience of the colour blue in its material state to its immaterial state. The physical presence of blue in the windows and drapes outside gives way to the liquid blue of the cocktail, and finally the metaphysical sensibility of blue inside the gallery completes the progression of immaterialization.

Subsequent presentations of these voids would involve considerably less theatrical build-up, and often had no visual cues linking the empty space to the color blue. A few months after the exhibition at Galerie Iris Clert, in a group exhibition at Hesselhuis in Antwerp, Klein provided no visual context or boundaries for the work, but instead stood on the site and announced: "FIRST THERE IS NOTHING, THEN THERE IS A DEEP NOTHING, THEN A BLUE DEPTH."²²

Later on Klein would present these works with no accompanying markers, context, or explanation at all—save for listing them in the exhibition catalogue. In February 1960, as part of the exhibition *Antagonismes* at the Musée des Arts Décoratifs in Paris, Klein simply labelled two empty installation spaces as "Zones de sensibilité picturale immatérielle." It was the first time he used this title²³.

While the circumstances of their presentation were subject to change, the content of each artwork remained consistent. Each void presented by Klein contained the immaterial sensibility of the color blue.

²²Sidra Stich. "Yves Klein." p. 152. Stuttgart: Cantz Verlag, 1994.

²³Ibid., 155.

FEATURES OF THE DIGITAL ZONE

The reproductions proposed in this paper differ from Klein's original *Zones* in two important ways.

Firstly, Klein's original *Zones* contained the pictorial sensibility of a specific shade of blue: his own patented International Klein Blue. My *Digital Zones* will be imbued with the sensibility of a different shade, so as not to infringe on the patent of Mr. Klein. To research a suitable blue sensibility for this project, I travelled to the north coast of Prince Edward Island, and created studies of different shades of blue present on the horizon where the Atlantic Ocean and sky converge. The specific blue I will create in these digital zones is the hazy, muted blue of that horizon, on a clear day, roughly three hours before civil twilight. This shade conveys a sense of the infinite while also connecting to the natural world, and as such provides a counterpoint to the otherworldly and mystical tone of International Klein Blue.

Secondly, and more importantly, Klein's *Zones* were manifested in a physical volume of space. The boundary of each work was sometimes defined by the walls of the gallery where it was exhibited, and other times the boundaries were less definite (as when the artwork existed in some amount of installation space in a group exhibition). Regardless, in each of these presentations the work occupied a finite physical space. Even in Klein's most ambitious plan for an immaterial artwork, *The Blue Revolution*, he makes a point to define the physical boundaries of the piece (it was to encompass all of France). My *Digital Zones of Immaterial Pictorial Sensibility* will exist entirely in virtual space, as I believe that physical space—even empty physical space—is a surplus requirement to Klein's original goals.

In *Digital Zones*, I will imbue this digital space (accessed at the URL www.mitchellfchan.com/zones)²⁴ with a pictorial sensibility in the same way that Klein imbued the physical space. Visiting this digital space brings the user to a pure white blank screen. The web page scrolls downwards for 101 lengths of the screen height (there are 101 *Zones*). Like Klein's original presentation at Galerie Iris Clert, there will be some context and build-up to the experience of the artwork. Visitors will see the work's title in the browser's title bar and, after landing on the page, click anywhere to enter the full-screen presentation mode. At this point the entirety of the monitor display dissolves into the artwork: a pure blankness.



[Fig. 3: Presentation of the *Digital Zones of Immaterial Pictorial Sensibility*, with hardware wallet]

²⁴ The artwork is actually hosted on Swarm, a decentralized data storage platform. The URL mitchellfchan.com/zones redirects here. Placing the data on a distributed network, as opposed to a traditional centralized server, satisfies two major conceptual requirements for the artwork: firstly, it further immaterializes the artwork by placing the data in constantly changing physical locations; secondly, it greatly reduces the possibility that the artwork will ever be taken offline. Visit <https://swarm-guide.readthedocs.io> for more information.

This web page is impregnated by the artist with the pictorial sensibility of the colour blue. This creative act transcends the coding of any visual features or colour information. It is through the sheer creative will of the artist that the virtual space transmits a visual experience.

I am translating Klein's artwork not to deconstruct it, but rather to complete and even improve the original work. Executing the Zones digitally means that certain facets of the work which required a physical aspect in 1958 may now be manifested in a more perfect immaterial state. And this further immaterialization of the artwork breaks down the central concept of the original artwork in useful ways: whereas the *Zones* originally presented a binary juxtaposition of the material and the immaterial, these *Digital Zones* reveal that there is in fact a whole spectrum of degrees of immateriality.

Klein's idea that a physically undifferentiated "nothingness" can transmit a real experience has already been proven true in contemporary digital technologies. Gaming is one example of an art form that has developed a lucrative market for immaterial extensions of real experiences. In many games, users may purchase "skins" for their characters which do not alter the gameplay mechanics or attributes of their character in any way. It is true that these assets do have a visual component, whereas the *Digital Zone of Immaterial Pictorial Sensibility* does not, but the effect is analogous: a player's experience of the game and their relationship to the in-game world change in ways which extend far beyond any measurable visual expression of the asset.

Our current consumer culture is quite comfortable with the idea of paying for the immaterial, and even accepts shifting or unclear definitions of ownership of those immaterial assets. Music collections, for instance, have migrated from individually owned digital files to streaming subscription models. These subscription models promise a magical connection to a near-complete archive of music history (that is to say, a sensibility of musical omniscience) in exchange for sacrificing any claim to

permanent ownership of that virtual archive. For me, these are shades of Klein's patrons burning their receipts in exchange for a true immaterial ownership.

The *Digital Zones of Immaterial Pictorial Sensibility* extend our culture's relationship to the virtual asset. The *Digital Zone* is not a virtual avatar for a physical thing, and in this way it avoids the problem of the virtual as a simulacrum, subservient to the real. A digital music file produces a reproduction of a physical sonic experience. An in-game virtual asset such as, say, a new set of horse armour, is a visual representation of a real-world thing. The *Digital Zone of Immaterial Pictorial Sensibility* is the first ever digital product which is not a stand-in, representation, avatar, or vessel for another phenomenon. The *Digital Zone of Immaterial Pictorial Sensibility* is itself the immaterial artistic sensibility of blue. It is, like Klein himself said, "without any effect, any trick or any deception."²⁵ It is a connection between two distinct types of virtuality.

²⁵ Klein, *Preparation and Presentation of the Exhibition on April 28, 1958*

FEATURES OF THE TRANSACTION AND TOKEN

SOURCE TEXT

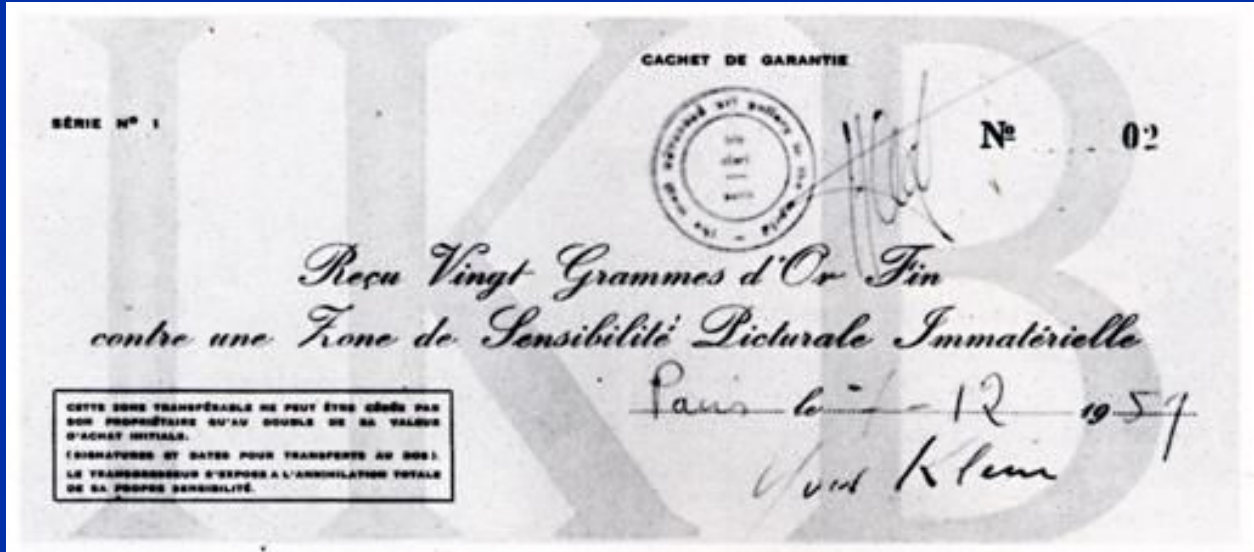
The immaterial pictorial sensitivity zones of Yves KLEIN the Monochrome are relinquished against a certain weight of fine gold. Seven series of these pictural [sic] immaterial zones all numbered exist already. For each zone relinquished a receipt is given. This receipt indicates the exact weight of pure gold which is the material value correspondent to the immaterial acquired.

These zones are transferrable by their owner.

-Yves Klein,

*Ritual for the Relinquishment of the Immaterial Pictorial Sensitivity Zones,
1957-1959*

THE ORIGINAL PURCHASE OF KLEIN'S ZONES



[Fig. 4: Receipt issued by Klein to purchasers of *Zones*]

Klein claims to have sold two immaterial artworks from the *Void* exhibition at Iris Clert's gallery in 1958. By the time of the exhibition at Hesseshuis, he had declared his intention to sell these pieces only for gold as opposed to money.²⁶

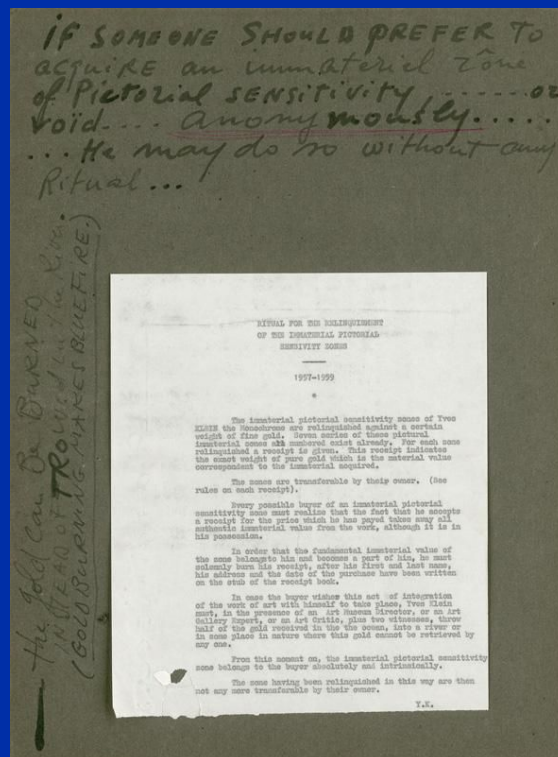
By 1961, he had formalized the ritual through which the artworks could be transacted, created the artist-designed receipts which would be given to the purchasers of the artworks, and performed the first "rituals" through which those purchasers could destroy their receipts to obtain the true immaterial value of the artwork.

Klein created 8 receipt books which would record purchases of the *Zones*. The first book, Series 0 (it is convenient for my coding purposes that Klein used a 0-indexed

²⁶ Ibid.

numbering system) was irregular in that it contained 31 receipts and did not specify a purchase price. The receipt books for Series 1 - 7 each contained 10 receipts, for a total issuance of 101 Zones. Series 1 Zones were sold for 20 grams of gold (valued in 1961 at approximately \$25 USD, and today at approximately \$775 USD). Each subsequent series priced the zones at double the previous price.

THE RITUAL, AT THE RIVER SEINE AND ON THE BLOCKCHAIN



[Fig. 5: Ritual For The Relinquishment of the Immaterial Sensitivity Zones]

Klein drew a clear distinction between ownership of the receipt for the artwork, and ownership of the true “immaterial value” of the artwork. To acquire the latter, a holder of a receipt for the artwork could participate in a ritual. They met Klein in the presence of witnesses at the River Seine and burned their receipt. Klein then threw half of the

gold he received as payment into the river, and the true transaction was complete. For Klein, a true ownership of the artwork meant that the pure artistic sensibility of the piece was completely absorbed, or “integrated,” into the owner. It was a part of them. Hence no material record would be required. The artwork now belonged to the buyer “absolutely and intrinsically.”²⁷

There are three well-documented instances where purchasers of the *Zones* did participate in this ritual to relinquish their material deed to the artwork in order to gain its immaterial value.

THE PURCHASE AND TRANSACTION OF DIGITAL ZONES

Digital Zones of Immaterial Pictorial Sensibility will be sold for quantities of the cryptocurrency ether (symbol: Ξ TH) rather than gold. This transaction is documented through the transfer of a digital token rather than a paper receipt.

The use of digital token has numerous advantages over Klein’s original paper notes. Firstly, selling the artwork through a smart contract is in keeping with Klein’s statement (written in the margins of his “Rules For The Relinquishment”) that *Zones* may be purchased anonymously. Secondly, the digital token is easier to exchange, and makes the asset considerably more liquid. Thirdly, the smart contract guarantees the limited issuance of the artwork. An audit of the contract proves that it is impossible for more than 101 *Digital Zones* to ever be sold, and that it is impossible to forge a token. Finally, using the ethereum blockchain to exchange *Digital Zones* ensures that the provenance of each *Digital Zone* is always documented. (On this last point: I expect that

²⁷ Yves Klein, *Ritual for the Relinquishment of the Immaterial Pictorial Sensitivity Zones*. 1959.

institutional curators and commercial gallerists dealing in digital art will appreciate the transaction model this project provides, and may even try to emulate it.)

Beyond any practical benefits to the use of tokens, however, I am most pleased with the way this technology extends and improves the conceptual alignment of the artwork and its transaction model. The sale of a *Digital Zone* produces a type of documentation that is as verifiable and presentable as a paper receipt, but also non-physical. Hence, even the formal, transactional element of the project has been immaterialized. The difference between the transactable artwork and the essential artwork is defined by *degrees of immateriality*.

I have created the following guidelines that explain the conditions for the sale of the token.

General Guidelines

- i. The purchase of each *Digital Zone of Immaterial Pictorial Sensibility* is recorded through the transfer of a digital token. The token is created and transacted through a smart-contract I have written and deployed on the ethereum blockchain. The address of the smart contract will be posted publicly three days prior to the token sale, and can be reviewed or audited by anyone.
- ii. The token is denoted by the symbol IKB. This paper will hereby use "IKB" as a reference to the token.
- iii. Unlike most other digital currencies or tokens, IKB is indivisible. That is to say, it is impossible to be in possession of 2.5 or 0.314 IKB. Each IKB is an artwork, and one wouldn't cut a painting into individual pieces.

- iv. IKB complies with ethereum's ERC-20 standard, and therefore can be stored in any wallet or account which holds Ether or ethereum tokens. Holders will be able to see their balances in these wallets, and I consider the display of an IKB balance to be a “display value” of the artwork.

Issuance

- i. 101 *Digital Zones of Immaterial Pictorial Sensibility* will be issued.
- ii. 31 *Digital Zones* will be issued in the first series, and 10 in each subsequent series.
- iii. The first series will be released at 00:30 UTC on August 31, 2017 (20:30 EST August 30) on the ethereum Homestead network.
- iv. When a series is released, all tokens in that series are available simultaneously. After that series sells out, no more IKB are available until the artist calls a function to release the next series. For example, upon the release of Series 0, 31 IKB will be available. Only after those 31 IKB are sold may I release a new series to make another 10 IKB available at a higher price. However, I reserve the right to withhold the release of new series indefinitely.
- v. The above policy means that, after Series 0, there may only ever be a maximum of 10 unsold IKB available for purchase at a time.
- vi. The sale of *Digital Zones* is intended to last at least as long as my own life, and thus, the final series of IKB may not be released for years or decades. It is likely that I will release enough series of IKB tokens early on to satisfy whatever initial demand exists, and then spread out the release of subsequent series over many years, probably to correspond with the opening of special exhibitions.

How To Purchase IKB

- i. A detailed guide on how to purchase IKB will be posted at mitchellfchan.com approximately one week prior to the beginning of the sale for Series 0. The guide will include the address of the IKB smart contract, instructions on how to purchase ether, and a guide on how to trade ether for IKB over a variety of client interfaces including Parity, Mist, and MyEtherWallet.
- ii. IKB may only be purchased with the digital currency ether.
- iii. Klein did not specify a set price for *Zones* sold in Series 0, but in keeping with his theme of doubling the price of each series, I have chosen to set the price of the 31 *Digital Zones* of Series 0 at 0.1 Ξ TH. At the time of publication, 0.1 Ξ TH is valued at \$29.6 USD.
- iv. The prices for each subsequent series double. The rate schedule is thus:
 - Series 0 (31 works): 0.1 Ξ TH
 - Series 1 (10 works): 0.2 Ξ TH
 - Series 2 (10 works): 0.4 Ξ TH
 - Series 3 (10 works): 0.8 Ξ TH
 - Series 4 (10 works): 1.6 Ξ TH
 - Series 5 (10 works): 3.2 Ξ TH
 - Series 6 (10 works): 6.4 Ξ TH
 - Series 7 (10 works): 12.8 Ξ TH

The Ritual

- i. The smart contract includes a function which reproduces the effects of Klein's ritual, and can be executed by any holder of IKB. Upon calling the function, the user obtains the true immaterial value of the *Digital Zone of Immaterial Pictorial Sensibility*.

- ii. When the holder executes this function of the contract, their IKB token is destroyed and a quantity of ether equivalent to half the purchase price of that token is removed from my own account.
- iii. When the ritual function is called, the holder's IKB balance is shown to be reduced by one, and the balance of the smart contract does not increase commensurately—that token is removed from circulation. Another IKB token may not be issued in its place. The IKB smart contract records which tokens have been destroyed.
- iv. In lieu of throwing gold into the river, my own ether is thrown to the miner of the block on which the ritual function is executed.
- v. When calling the ritual function, only one IKB is burned at a time. If a holder holds more than one IKB and wishes to obtain the true immaterial of more than one *Digital Zone*, they must call the function multiple times and each time specify which *Digital Zone* they are redeeming.
- vi. The smart contract keeps an internal ledger of each transaction to ensure the amount of ether burned corresponds to the purchase price of the particular *Digital Zone* being redeemed.
- vii. My own presence is not required to enact the ritual, a holder may easily perform it on their own. The features of the smart contract allow for a completely trustless exchange of this immaterial value. The smart-contract function satisfies all the requirements of the ritual, and does undoubtedly result in the transfer of the immaterial value. The token is verifiably destroyed and the ether is verifiably thrown back to a mining pool. Klein's requirement for witnesses to the ritual is also satisfied: when the function is executed on the blockchain, it is witnessed by thousands of connected nodes who each confirm the validity of the ritual.
- viii. Despite my presence not being necessary, I will be available to perform the ritual in person with an IKB holder who chooses to include me in the ritual. If

this option is requested by the IKB holder, we will meet near a body of water, with the holder bringing their token on a laptop, phone, or hardware wallet. We will call the function to exchange the immaterial value of the artwork together.

- ix. Following the execution of this function, the true immaterial value of the artwork belongs intrinsically to the owner.

Trading

- i. Klein's original receipts explicitly state that a receipt for a *Zone* may only be resold for double its original purchase price. I have read an account claiming that any resale for double the purchase price was required to involve Mr. Klein himself as an intermediary. However, I could not find evidence of this requirement in Klein's original writings, and so I have chosen to disregard it and allow for IKB to be resold without myself acting as a facilitator. And obviously, following Mr. Klein's death in 1962, *Zone* receipts were resold and it would have been impossible to enforce this requirement. However, owners of IKB are still instructed to sell their tokens for no less than double their purchase price.
- ii. Because of the low issuance of IKB and its indivisibility, there will only ever be a maximum of 101 holders of IKB. Patrons looking to invest in IKB should be aware that due to this extreme illiquidity, any secondary market transactions of IKB will likely be conducted through private sales. I have no intention of lobbying any exchanges to list IKB.
- iii. Despite the indivisibility of the token itself, emerging crypto fund management applications such as Prism or Melon will make it possible for fund managers to securitize their holdings of IKB and break that security into any number of tranches. Just like managers of traditional investment funds, I expect that the emerging class of digital asset fund managers will diversify their investment portfolios to include ownership of artworks. The IKB represents the first tokenized artwork in the class

of digital assets, and as such may be seen as an investment proposition for these portfolios. However, I warn any fund manager considering securitizing IKB that the immaterial value of the artwork may not be transferred once the ritual has occurred, and likely cannot be redeemed in tranches.

AFFILIATION WITH THE ESTATE OF YVES KLEIN AND LEGAL STATUS

I have attempted to make the estate of Yves Klein aware of this work through e-mail communication with both the Yves Klein archive and Levy-Gorvy (the commercial gallery which represents the estate of Yves Klein). My requests to issue this artwork as officially authorized by the estate of Yve have been denied. In an email communication, a representative from the Yves Klein Archive replied that “the rights holders of Yves Klein do not wish to move further into this project.” Emails to the directors of Levy Gorvy were not returned.

Investors in the IKB token should understand that this reproduction of Yves Klein’s *Zones de sensibilité picturale immatérielle* is completely unauthorized. As the artist of this work, I am prepared to assume any liability resulting in legal challenges from the estate of Mr. Klein. A legal challenge from the estate would, however, prove that I have been successful in reproducing this original work. Investors should also be aware that, due to the immutable nature of the blockchain, their tokens cannot be destroyed or repealed. Of course, should any investors choose to obtain the true immaterial value of the artwork through the token-burning ritual, that value cannot be transacted or reappropriated.